

IN THE CLAIMS

Claims 1-8 (cancelled).

9. (Currently Amended) An ultrasonic transducer comprising:

a diaphragm;

an embossed backplate for exciting the diaphragm; and

a first area, wherein the diaphragm and the embossed backplate are in contact and a second area wherein the diaphragm and the embossed backplate are not in contact, and the first area is small compared to the second area,

wherein the backplate has a plurality of webs for exciting those parts of the diaphragm which are arranged above the webs, wherein each web has a width, a height and is spaced at a distance from one another,

wherein the distance between two adjacent webs is selected to be smaller than the width of the webs such that fringe effects of the excitation of the diaphragm by the plurality of webs occurring at edge of the adjacent webs bridge the distance

and wherein the ultrasonic transducer produces an ultrasonic signal.

10. (Previously Presented) The ultrasonic transducer according to claim 9, wherein the backplate has an approximately sine-shaped profile in cross section.

11. (Previously Presented) The ultrasonic transducer according to claim 10, wherein the spacing between the diaphragm and the surface of the backplate is substantially sine-shaped.

12. (Cancelled)

13. (Previously Presented) The ultrasonic transducer according to claim 9, wherein the embossed backplate has raised portions such that an air gap between the diaphragm and the raised portions of the backplate is less than the height of the raised portions.

Do Not
Enter
D.H.P.
1/18/06